AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior listings of claims in this application.

Listing of Claims:

1. (Currently amended) A method for immunostimulation in a mammal in need of immunostimulation, comprising the following steps:

(a) ~~administration of~~ administering to the mammal at least one mRNA containing a region which codes for at least one antigen of a pathogen or codes for at least one tumour antigen and

(b) ~~administration of~~ separately administering to the mammal at least one ~~component of at least one of the following categories chosen from the group consisting of a cytokine, a~~ cytokine mRNA ~~, an adjuvo-viral mRNA, a CpG DNA and an adjuvant RNA~~.

whereby an immune response in the mammal is intensified or modulated.

2. (Currently amended) ~~A~~ The method according to claim 1, wherein ~~step b.~~ step (b) is carried out 1 minute to 48 hours ~~, preferably 20 minutes to 36 hours, equally preferably 30 minutes to 24 hours, more preferably 10 hours to 30 hours, most preferably 12 hours to 28 hours, especially preferably 20 hours to 26 hours~~ after step (a).

3. (Currently amended) ~~A~~ The method according to claim 1, wherein in step (a) at least one RNase inhibitor ~~, preferably RNasin or aurintricarboxylic acid,~~ is additionally administered.

4. (Currently amended) A method according to claim 1, wherein ~~an immune response is intensified or modulated, preferably is modified~~ the modulation of the immune response comprises a modification from a Th2 immune response into a Th1 immune response in said mammal.

5. (Currently amended) ~~A~~ The method according to claim 1, wherein the at least one mRNA from step (a) contains a region which codes for at least one antigen from a tumour

~~chosen~~ selected from the group consisting of: 707-AP, AFP, ART-4, BAGE, β-catenine/m, Bcr-abl, CAMEL, CAP-1, CASP-8, CDC27/m, CDK4/m, CEA, CMV pp65, CT, Cyp-B, DAM, EGFR1, ELF2M, ETV6-AML1, G250, GAGE, GnT-V, Gp100, HAGE, HBS, HER-2/neu, HLA-A*0201-R170I, HPV-E7, HSP70-2M, HAST-2, hTERT (or hTRT), influenza matrix protein ~~, in particular~~ or ~~in~~fluenza A matrix M1 protein or influenza B matrix M1 protein, iCE, KIAA0205, LAGE, e.g. LAGE-1, LDLR/FUT, MAGE, e.g. MAGE-A, MAGE-B, MAGE-C, MAGE-A1, MAGE-2, MAGE-3, MAGE-6, MAGE-10, MART-1/melan-A, MC1R, myosine/m, MUC1, MUM-1, -2, -3, NA88-A, NY-ESO-1, p190 minor bcr-abl, Pml/RARα, PRAME, proteinase 3, PSA, PSM, PTPRZ1, RAGE, RU1 or RU2, SAGE, SART-1 or SART-3, SEC61G, SOX9, SPC1, SSX, survivin, TEL/AML1, TERT, TNC, TPI/m, TRP-1, TRP-2, TRP-2/INT2, tyrosinase and WT1.

6. (Currently amended) ~~A~~ The method according to claim 1, wherein the at least one mRNA encoding a cytokine encodes a cytokine ~~is chosen~~ selected from the group consisting of IL-1 (α/β), IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-12, IL-13, IL-15, IL-18, IL-21, IL-22, IL-23, IFN-α, IFN- β, IFN- γ, LT- α, MCAF, RANTES, TGFα, TGFβ1, TGFβ2, TNFα, TNFβ ~~and particularly preferably G-CSF or GM-CSF or M-CSF~~ , G-CSF, GM-CSF and M-CSF.

7. (Previously presented) ~~A~~ The method according to claim 1, wherein the at least one mRNA from step (a) and/or from step (b) is ~~in the form of naked or~~ complexed ~~mRNA~~ or condensed with at least one cationic or polycationic agent.

8. (Currently amended) ~~A~~ The method according to claim 1, wherein the at least one mRNA from step (a) and/or from step (b) is in the form of globin UTR (untranslated regions)-stabilized mRNA ~~, in particular β-globin UTR-stabilized mRNA~~.

9. (Currently amended) ~~A~~ The method according to claim 1, wherein the at least one mRNA from step (a) and/or from step (b) is in the form of modified mRNA ~~, in particular stabilized mRNA~~.

10. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 9, wherein the G/C content of the coding region of the modified mRNA from step (a) and/or from step (b) is increased compared with the G/C content of the coding region of the corresponding wild-type mRNA ~~RNA, the coded amino acid sequence of the modified mRNA preferably not being modified compared with the coded amino acid sequence of the wild-type mRNA~~.

11. (Currently amended) ~~A~~ The method according ~~claim 1~~ claim 9, wherein the modified mRNA includes a ribosome binding site and the A/U content in the environment of the ribosome binding site of the modified mRNA from step (a) and/or from step (b) is increased compared with the A/U content in the environment of the ribosome binding site of the wild-type mRNA.

12. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 9, wherein the coding region and/or the 5' and/or 3' untranslated region of the modified mRNA from step (a) and/or from step (b) is modified compared with the wild-type mRNA such that it contains no destabilizing sequence elements ~~, the coded amino acid sequence of the modified mRNA preferably not being modified compared with the wild-type mRNA~~.

13. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 9, wherein the modified mRNA from step (a) and/or from step (b) has a 5' cap structure and/or a poly(A) tail ~~, preferably of at least 25 nucleotides, more preferably of at least 50 nucleotides, even more preferably of at least 70 nucleotides, equally more preferably of at least 100 nucleotides, most preferably of at least 200 nucleotides,~~ and/or at least one IRES and/or at least one 5' and/or 3' stabilizing sequence.

14. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 9, wherein the modified mRNA from step (a) and/or from step (b) ~~or the adjuvant RNA from step (b.)~~ contains at least one analogue of naturally occurring nucleotides.

15. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 9, wherein the modified mRNA from step (a) and/or from step (b) ~~or the adjuvant RNA from step (b)~~ is complexed or condensed with at least one cationic or polycationic agent.

16. (Currently amended) ~~A~~ The method according to ~~claim 1~~ claim 15, wherein the cationic or polycationic agent is ~~chosen~~ selected from the group consisting of protamine, poly-L-lysine, poly-L-arginine and histones.

17. (Currently amended) ~~A~~ The method according to claim 1, wherein the immunostimulation is carried out in connection with ~~for~~ treatment of tumour diseases, allergies, autoimmune diseases~~, such as multiple sclerosis~~, and protozoological, viral and/or bacterial infections in a mammal in need in immunostimulation.

18. – 20. Cancelled

21. (new) The method according to claim 7, wherein the cationic or polycationic agent is selected from the group consisting of protamine, poly-L-lysine, poly-L-arginine and histones.